

What is claimed is:

1. A two-way dispatching method of manufacturing IC, while a plurality of lots of wafers with a plurality of priorities are manufactured in a process by a plurality of equipments, used to determine a dispatching order in a plurality of workstations, wherein the process is composed of a plurality of stages, and the stages are composed of a plurality of workstations, the two-way dispatching method of manufacturing IC comprising:

performing a first push step, a first lot of wafers with a compulsory order is dispatched into the workstations, wherein the first lot of wafers is included in the lots of wafers;

calculating a plurality of first capacities and a plurality of first deficiencies of the equipments;

performing a first pull step, if amount of lots of wafers manufactured in a first stage of the stages is not filled to a first full load and has a first vacancy, then a second lot of wafers having the same amount as the first vacancy of the first stage is dispatched to a second stage, in front of the first stage, wherein the second lot of wafers is included in the lots of wafers;

calculating a plurality of capacities and a plurality of second deficiencies of the equipments;

performing a second pull step, if amount of lots of wafers manufactured in a first workstation of the workstation s is not filled to a second full load and has a second vacancy, then a third lot of wafers having the same amount as the second vacancy of the first workstation is dispatched to a second workstation, in front of the first workstation, wherein the first workstation and the second workstation are in the same

stage, and the third lot of wafers are included in the lots of wafers;

calculating a plurality of capacities and a plurality of third deficiencies of these equipments; and

performing a second push step, dispatching the lots of wafers into the  
5 workstations, which is not filled the second full load.

2. The two-way dispatching method of manufacturing IC of claim 1, wherein  
the first lots of wafers with the compulsory order comprising: lots of wafers with a  
special priority, delay lots of wafers, and idle lots of wafers affecting manufacturing  
10 IC.

3. The two-way dispatching method of manufacturing IC of claim 1, wherein  
the second lots of wafers has the same amount of the first vacancy.

15 4. The two-way dispatching method of manufacturing IC of claim 1, wherein  
the third lots of wafers has the same amount of the second vacancy.

5. The two-way dispatching method of manufacturing IC of claim 1, wherein  
the second stage is next to the first stage.

20 6. The two-way dispatching method of manufacturing IC of claim 1 further  
comprising: repeating the first pull step, dispatching from the second stage to the first  
one of the stages.

7. The two-way dispatching method of manufacturing IC of claim 6, wherein the first stage is the last one of the stages.

5 8. The two-way dispatching method of manufacturing IC of claim 1, wherein the second workstation is next to the first workstation.

10 9. The two-way dispatching method of manufacturing IC of claim 8 further comprising: repeating the second pull step, dispatching from the second workstation of the stages to the first one of the workstation of the stages.

10 10. The two-way dispatching method of manufacturing IC of claim 9, wherein the first workstation is the last one of the workstation.

15 11. A two-way dispatching method of manufacturing IC, while a plurality of lots of wafers with a plurality of priorities are manufactured in a process by a plurality of equipments, uses to determine a dispatching order in a plurality of work units, wherein the process is composed of the work units, the two-way dispatching method of manufacturing IC comprising:

20 performing a first push step, a first lots of wafers with a compulsory order is dispatched into these workstation, wherein the first lot of wafers is comprised in the lots of wafers;

calculating a plurality of first capacities and a plurality of first deficiencies of

these equipments;

performing a pull step, if a mount of lots of wafers manufactured in a first work unit of the work units is not filled to a first full load and has a first vacancy, then a second lot of wafers having the same amount as the first vacancy of the first work units is dispatched to a second work units, in front of the first work unit, wherein the second lot of wafers is included in the lots of wafers;

calculating a plurality of capacities and a plurality of second deficiencies of these equipments; and

performing a second push step, dispatching the lots of wafers into the work units, which is not filled the second full load.

12. The two-way dispatching method of manufacturing IC of claim 11, wherein the first lot of wafers with the compulsory order comprises: lots of wafers with a special priority, delay lots of wafers, and idle lots of wafers affecting manufacturing IC.

13. The two-way dispatching method of manufacturing IC of claim 11, wherein the second lot of wafers has the same amount of the first vacancy.

14. The two-way dispatching method of manufacturing IC of claim 11, wherein the second work unit is next to the first work unit.

15. The two-way dispatching method of manufacturing IC of claim 1 further

comprising: repeating the pull step; and dispatching from the second work unit to the first one of the work unit.

16. The two-way dispatching method of manufacturing IC of claim 15,  
5 wherein the first work unit is the last one of the work units.

17. A dispatching method of wafers of manufacturing IC, while a plurality of  
lots of wafers are manufactured in a process in a plurality of workstations of a  
plurality of stages by a plurality of equipments, the dispatching method of wafers of  
10 manufacturing IC comprising:

providing a database, wherein the database has a plurality of process data of  
the lots of wafers of the workstations;

determining a plurality of lots of wafers by using the process data;

15 gathering a plurality of capacity limits of the equipments from a capacity  
scheme system;

gathering a plurality of standard amount of wafers which can be manufactured  
in the equipments according to the capacity scheme system;

calculating a plurality of deficiencies of the equipments by the standard  
amount of wafers;

20 Performing the two-way dispatching method to dispatch the lots of wafers by  
the priorities, the capacity limits of the equipments, and the deficiencies of the  
equipments, the two-way dispatching method comprising:

performing a first push step;

performing a first pull step;  
performing a second pull step;  
performing a second push step; and  
printing a dispatching list according to the result of the two-way  
5 dispatching method.

18. The dispatching method of wafers of manufacturing IC of claim 17,  
wherein the first push step further comprises: a first lots of wafers with a compulsory  
order dispatched into these workstation, wherein the first lot of wafers is included in  
10 the lots of wafers.

19. The dispatching method of wafers of manufacturing IC of claim 17,  
wherein the first lot of wafers with the compulsory order comprises: lots of wafers  
with a special priority, delay lots of wafers, and idle lots of wafers affecting  
15 manufacturing IC.

20. The dispatching method of wafers of manufacturing IC of claim 17,  
wherein the first pull step further comprises: if a mount of lots of wafers manufactured  
in a first stage of the stages is not filled to a first full load and has a first vacancy,  
20 dispatching a second lot of wafers having the same amount as the first vacancy of the  
first stage to a second stage, in front of the first stage, wherein the second lot of wafers  
comprises included in the lots of wafers.

21. The dispatching method of wafers of manufacturing IC of claim 20,

wherein the second lots of wafers has the same amount as the first vacancy.

22. The dispatching method of wafers of manufacturing IC of claim 20, wherein the second stage is next to the first stage.

5

23. The dispatching method of wafers of manufacturing IC of claim 20 further comprising: repeating the first pull step; and dispatching from the second stage to the first one of the stages.

24. The dispatching method of wafers of manufacturing IC of claim 20, wherein the first stage is the last one of the stages.

25. The dispatching method of wafers of manufacturing IC of claim 17, wherein the second pull step further comprises: if a mount of lots of wafers manufactured in a first workstation of the workstation s is not filled to a second full load and has a second vacancy, dispatching a third lot of wafers having the same amount as the second vacancy of the first workstation to a second workstation, in front of the first workstation, wherein the first workstation and the second workstation are in the same stage, and the third lot of wafers comprises included in the lots of wafers.

15  
20

26. The dispatching method of wafers of manufacturing IC of claim 17, wherein the third lot of wafers has the same amount of the second vacancy.

27. The dispatching method of wafers of manufacturing IC of claim 17, wherein the second workstation is next to the first workstation.

28. The dispatching method of wafers of manufacturing IC of claim 17  
5 further comprising: repeating the second pull step and dispatching from the second workstation of the stages to the first one of the workstation of the stages.

10  
15  
20  
25  
30  
35  
40  
45  
50  
55  
60  
65  
70  
75  
80  
85  
90  
95  
100  
105  
110  
115  
120  
125  
130  
135  
140  
145  
150  
155  
160  
165  
170  
175  
180  
185  
190  
195  
200  
205  
210  
215  
220  
225  
230  
235  
240  
245  
250  
255  
260  
265  
270  
275  
280  
285  
290  
295  
300  
305  
310  
315  
320  
325  
330  
335  
340  
345  
350  
355  
360  
365  
370  
375  
380  
385  
390  
395  
400  
405  
410  
415  
420  
425  
430  
435  
440  
445  
450  
455  
460  
465  
470  
475  
480  
485  
490  
495  
500  
505  
510  
515  
520  
525  
530  
535  
540  
545  
550  
555  
560  
565  
570  
575  
580  
585  
590  
595  
600  
605  
610  
615  
620  
625  
630  
635  
640  
645  
650  
655  
660  
665  
670  
675  
680  
685  
690  
695  
700  
705  
710  
715  
720  
725  
730  
735  
740  
745  
750  
755  
760  
765  
770  
775  
780  
785  
790  
795  
800  
805  
810  
815  
820  
825  
830  
835  
840  
845  
850  
855  
860  
865  
870  
875  
880  
885  
890  
895  
900  
905  
910  
915  
920  
925  
930  
935  
940  
945  
950  
955  
960  
965  
970  
975  
980  
985  
990  
995

29. The dispatching method of wafers of manufacturing IC of claim 17, wherein the second pull step further comprises: dispatching the lots of wafers into the  
10 workstations, which are not filled with the second full load.